

REMARKS

DRAWINGS

The Examiner objected to the drawings as failing to comply with 37 CFR 1.84(p)(4) because reference character “400” had been used to designate data input means, circular indicator device, and loop-shaped range. The specification, specifically pages 68-71, has been amended to overcome the objection to the drawings and more particularly call out indicator device 400. Therefore, applicant respectfully requests the Examiner withdraw the objection.

The Examiner objected to the drawings as failing to comply with 37 CFR 1.84(p)(4) because reference characters “42-46” and “42-44, 46, and 47” have both been used to designate areas. The specification, specifically page 61, has been amended to overcome the objection to the drawings and more particularly call out reference characters 42, 43, 44, 46, and 47. Therefore, applicant respectfully requests the Examiner withdraw the objection.

CLAIMS

Claims 4-6, 8-10, 12-14, 17, and 23-28 were objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim cannot depend from any other multiple dependent claim. Claims 4-6, 8-10, 12-14, 17, and 23-28 have been amended to eliminate any multiple dependent claims from depending from a multiple dependent claim. Therefore, applicant respectfully requests the Examiner withdraw the objection.

The Examiner rejected claim 2 under 35 USC §112 ¶2 as having insufficient antecedent basis for the limitation “the previously selected subset” in the claim. Claim 2 has been amended to recite “said selected on of the respective subsets of regions”, which has proper antecedent basis within claim 2. Therefore, applicant respectfully requests the Examiner withdraw the rejection.

The Examiner rejected claim 1 under 35 U.S.C. §103(a) as being unpatentable over Smith (UK Patent No. 2,145,257) in view of Kishi (U.S. Patent No. 5,903,229). The Examiner states that it would have been obvious to one having ordinary skill in the art at the time of the invention to allow the input device of Kishi to be used with a system similar to that which is taught by Smith, thereby providing an additional alternative method and apparatus for controlling the displayed information and this would allow the user to select displayed information in an easier and more accurate fashion.

The present invention relates to a method of selecting an item displayed on a display. To make a selection, a user is required to make a selection action – for example touching a touch pad or clicking a button on a mouse or joystick – at a position appropriate for the selection of the particular item. For example, a cursor or joystick at a particular position and clicking a button.

In one conventional system, a selection may be made by using a mouse to control the movement of a cursor to overlies an item displayed on a display to be selected, and then by clicking a button on the mouse to make the selection. In this way, the user has free movement of the cursor to any position on the screen.

This is contrasted to the present invention where the user is limited to a particular range or path along which a ‘cursor’ or locator can be moved to make the selection. In the simplest example of the present invention, the range along which the ‘cursor’ can be moved is a circular path, with the ‘cursor’ being moved along the path, or being positioned at any position on the path, but not being able to move to make a selection at any point not on the path. (It will be appreciated that while reference is made to the positioning of a cursor, there may be no cursor used or displayed, and the reference may be to the point of contact of a user’s finger on a touch sensitive pad, or the positioning of a joystick).

According to the present invention, the path or range along which selections can be made is in the form of a closed loop. This closed loop is divided into a number of sections, which correspond to the number of items displayed on the display, which can be selected. Each of the sections of the range corresponds to the arrangement of the items on the display. In this way, by moving or positioning the ‘cursor’ at a point along the closed loop path or range and carrying out the selection action, the item displayed on the screen at a position corresponding to the point along the range where the selection action was made will be selected.

An example of how this works in practice can best be understood from a consideration of Figure 10(a) of the application. In this case, the selection path or range is a circular path (reference 400). The items to be displayed in this case are three selectable items (references 411, 412, 413). These are arranged on the display around a central point. The selection path is divided into three sections, which correspond to the arrangement of the three selectable items. Therefore, the section from the 1 o’clock position to the 5 o’clock position corresponds to item 413, the section from the 5 o’clock position to the 9 o’clock position corresponds to item 412, and the section from the 9 o’clock position to the 1 o’clock position corresponds to item 411. Therefore, if the user makes a selection along the selection path in the 1 o’clock to 5 o’clock position (for example positions a cursor in this section and presses the button, touches a touch

pad in this region, points a joystick in this region and presses a button, etc.), the item 413 will be selected. Similarly, if the user makes a selection along the selection path in the 9 o'clock to 1 o'clock section, item 411 will be selected.

The uniqueness of the present invention lies in the provision of a continuous closed loop selection path or range that can be divided up dependent upon the number and arrangement of the items to be selected. For example, if there were only two items that could be selected, the range would be divided into two sections. If there were four items that could be selected, the range would be divided into four sections. If there are five selectable items, the range would be divided into five sections. This again can be seen from Figure 10(a), in which each of the three items selected are sub-groups of items – for example item 411 actually being a sub-group of five items. In this case, if the user was to select item 411 (by making a selection along the selection range in the 9 o'clock to 1 o'clock section), the display would effectively 'zoom in' on the item 411 so that the display area would show the five items (references 401 to 405). The circular range 400 would then be divided into five new sections. Generally, item 401 would be selected by making a selection in the range from 7 o'clock to 10 o'clock, item 402 in the range 10 o'clock to 12 o'clock, item 403 in the range 12 o'clock to 2 o'clock, item 404 in the range 2 o'clock to 5 o'clock and item 405 in the range 5 o'clock to 10 o'clock.

This ability to provide a closed loop selection range or path that can be divided up (within reason) into any number of sections corresponding to the number of selectable items and the relative arrangement of the selectable items as displayed on the display is not disclosed in the prior art cited by the Examiner, and is not considered to be obvious in the light of this prior art.

Smith discloses a selection system in which there are provided a fixed number of switches provided in an array. The items to be selected are divided into a number of sub-groups. The number of sub-groups corresponds to the fixed number of switches. Each of the sub-groups are themselves divided into further sub-groups, again the number of further sub-groups corresponding to the fixed number of switches. This sub-division continues until the sub-groups contain individual selectable items. An individual item is selected by repeatedly actuating the switch corresponding to the sub-groups in which the desired item is located.

The number of switches will correspond to the number of items or sub-groups that can be selected. However, unlike the present invention, the number of switches – and therefore the number of sub-groups into which the selectable items must be divided – is fixed. This will make it difficult and/or more time consuming to select an item than with the present invention. For example, if the array of switches comprises four switches, but there are five items that can be

selected, it is necessary to divide the four items into four sub-groups, i.e. with one of the groups having two items. Therefore, if one of these items is to be selected, this will require two selections – the first to select the sub-group, the second to select the item within the sub-group. This is not the case with the present invention, in which the range can be divided into any number of sections corresponding to the number of items, and therefore if there are five items the range can be divided into five. This is possible because the selection is made on a continuous closed loop path. This means that only a single step is required to make a selection of one item from five rather than the two selection steps required according to the disclosure in Smith.

At best, Smith suggests that different numbers of switches can be used and that these can be arranged in alternative patterns, the number of switches will still be fixed for a given application and the switches will be arranged in a fixed array rather than in a continuous path.

Kishi discloses a touch pad device that is able to emulate a dial input device. There is no suggestion in either of the references that they be combined in the manner suggested by the Examiner. There is nothing in this art that would suggest replacing the fixed array of switches disclosed in Smith with the jog emulation device of Kishi to arrive at the present invention. In particular, there is nothing in Kishi that would suggest the provision of a continuous closed loop selection path divided into a number of sections corresponding to the number of items to be selected and divided with an arrangement corresponding to the arrangement of items on a display. Therefore, even the combination of the teaching in the two cited documents does not arrive at the claimed invention. The Kishi disclosure relates to a jog dial emulation device. Jog dial devices (for example as used on IPODs) are used to scroll through a menu to make a selection, and are not intended to determine a particular direction or position along a closed loop path.

It is also noted that this device is unsuitable for use with the present invention since its normal operation is to determine clockwise or counter-clockwise movement of a user's finger to move through a menu, but will not determine an initial point along a closed loop path.

Moreover, the structure that would result from the Examiner's proposed combination does not meet the terms of amended claim 1. Even if the switches of Smith were replaced by the jog dial emulation of Kishi, the present invention would not be reached. In fact, the combination teaches away from the present invention. Rather than allowing a user to merely select a position by simply touching the region at 11 o'clock to select item 411, and then at 9 o'clock to select item 401, the user would have to touch the pad and then move their finger around in a circular motion until they arrived at the 11 o'clock position, and then repeat this to move to the 9 o'clock

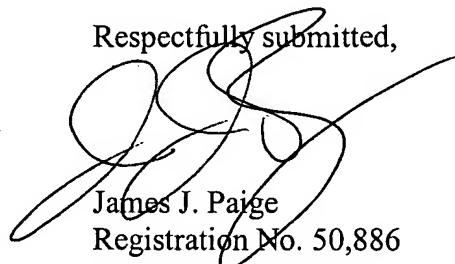
position. This is because the device disclosed in Kishi is used to determine relative movement in a circular path and not a particular position along a path. Therefore, claim 1 as amended is patentably distinct from the combination of Smith and Kishi.

Similar arguments can be made for claims 2-28 and therefore claims 2-28 are patentably distinct from the combination of Smith and Kishi.

In light of the above, applicant respectfully submits that claims 1-28 are in condition for allowance. As these are the only claims pending in the application, issuance of a Notice of Allowance is courteously solicited.

The application presents four independent claims and twenty-eight total claims. Enclosed herewith is a Petition for a Three-Month Extension of Time under 37 C.F.R. §1.136(a)(1) and a check for \$510 to cover the fee under 37 C.F.R. §1.17(a)(3). Please treat any communication filed at any time in this application, requiring a petition for an extension of time under 37 CFR 1.136(a) towards timely submission as incorporating a proper petition for an extension of the appropriate length of time. If any additional fees are required to enter the present amendment, applicant hereby authorizes the office to charge our Deposit Account No. 061910. If the Examiner feels prosecution of the present application can be materially advanced by telephonic interview the undersigned would welcome a call at the number listed below.

Respectfully submitted,



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Please grant any extension of time necessary for entry; charge any fee due to Deposit Account No. 06-1910.

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